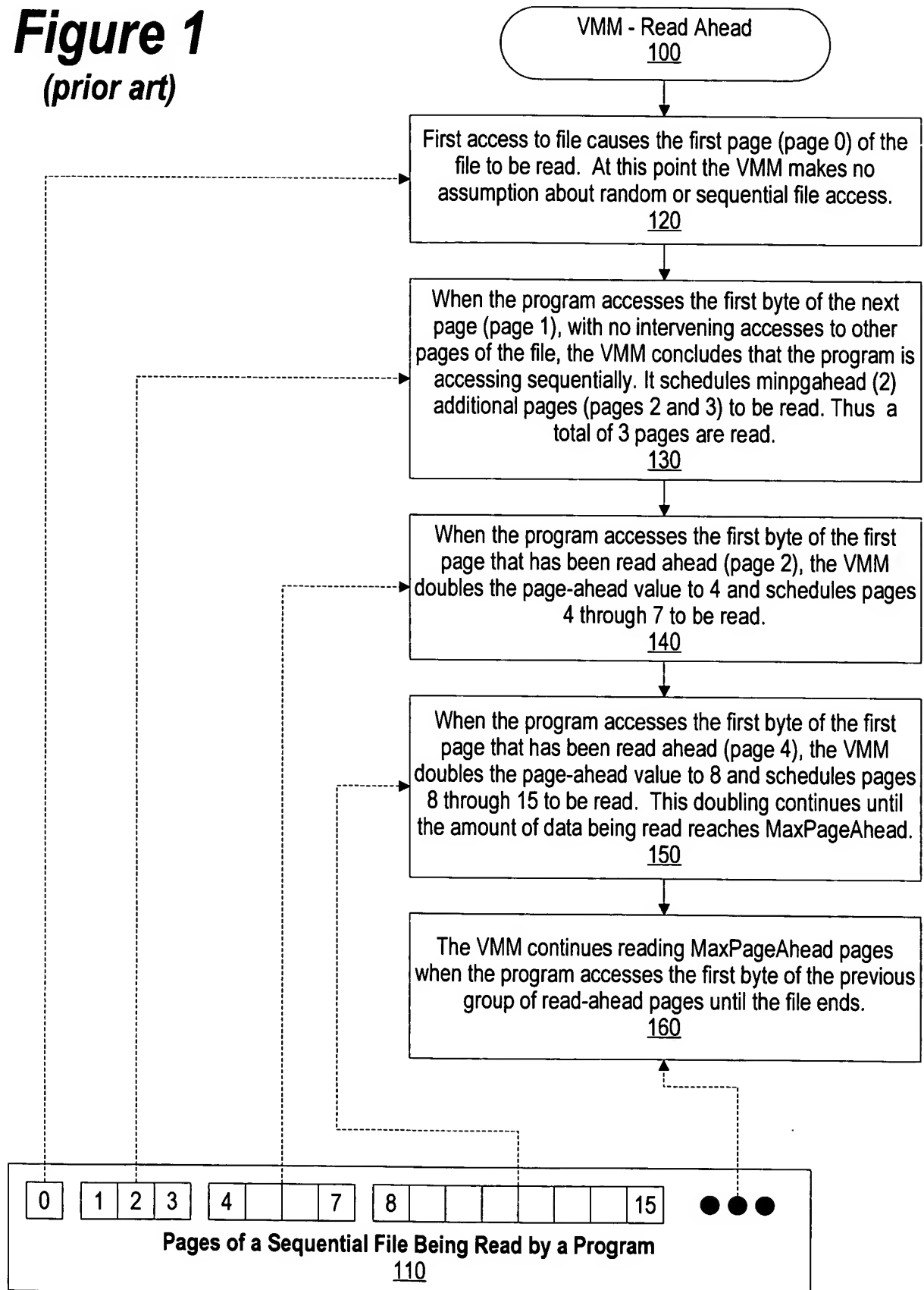
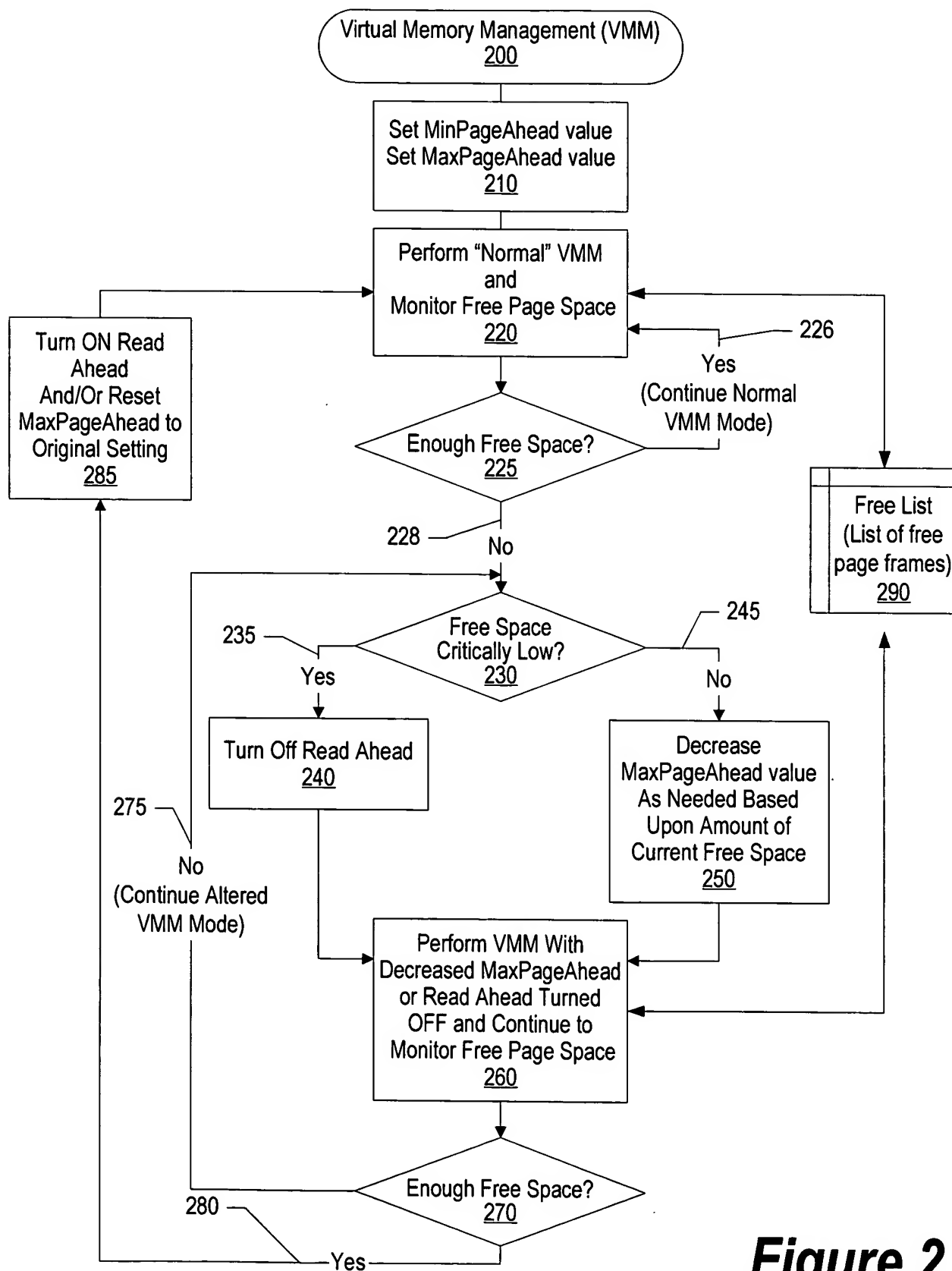
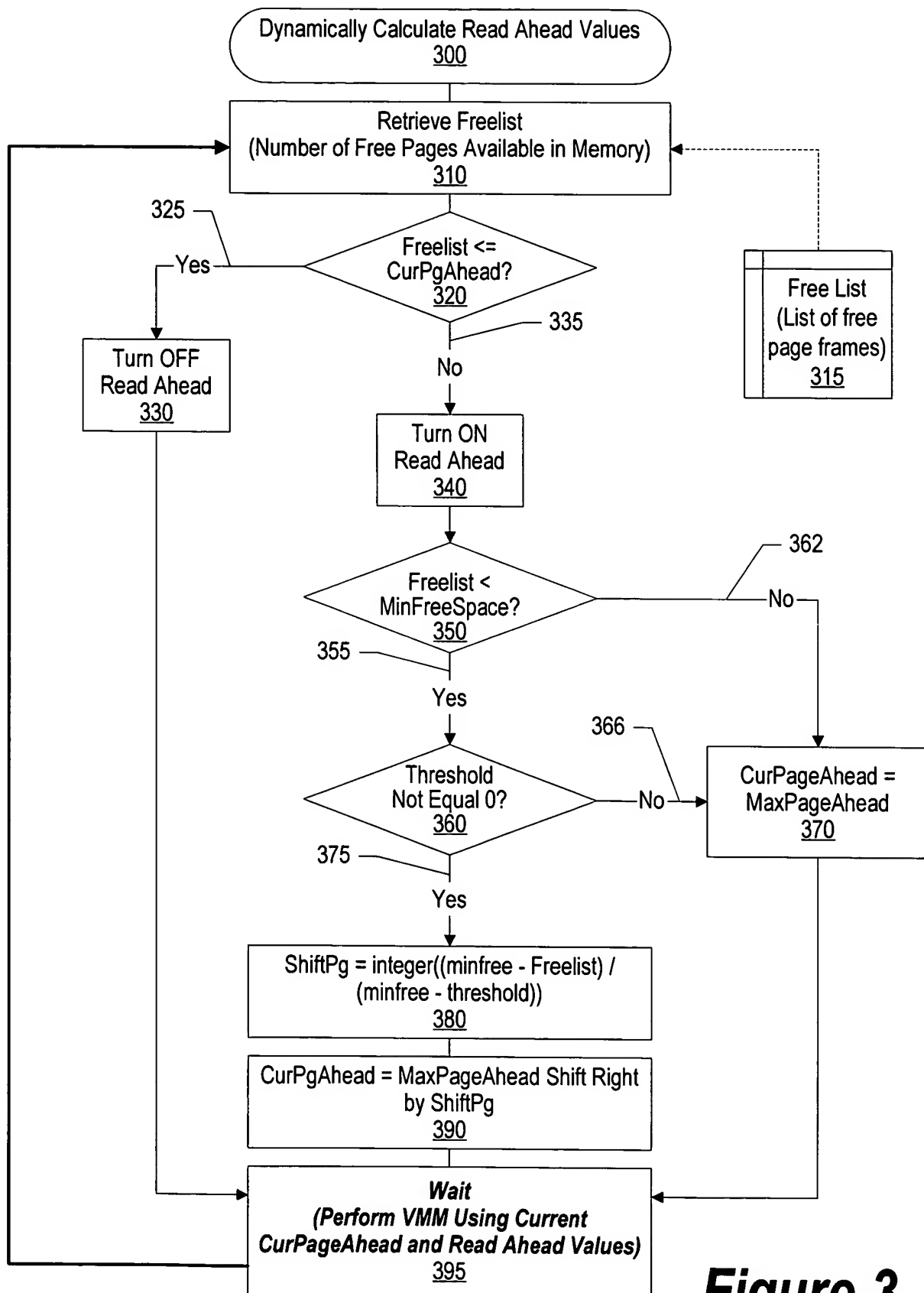


Figure 1
(prior art)



**Figure 2**

**Figure 3**

System and Method for Dynamically Adjusting Read Ahead Values Based Upon Memory Usage

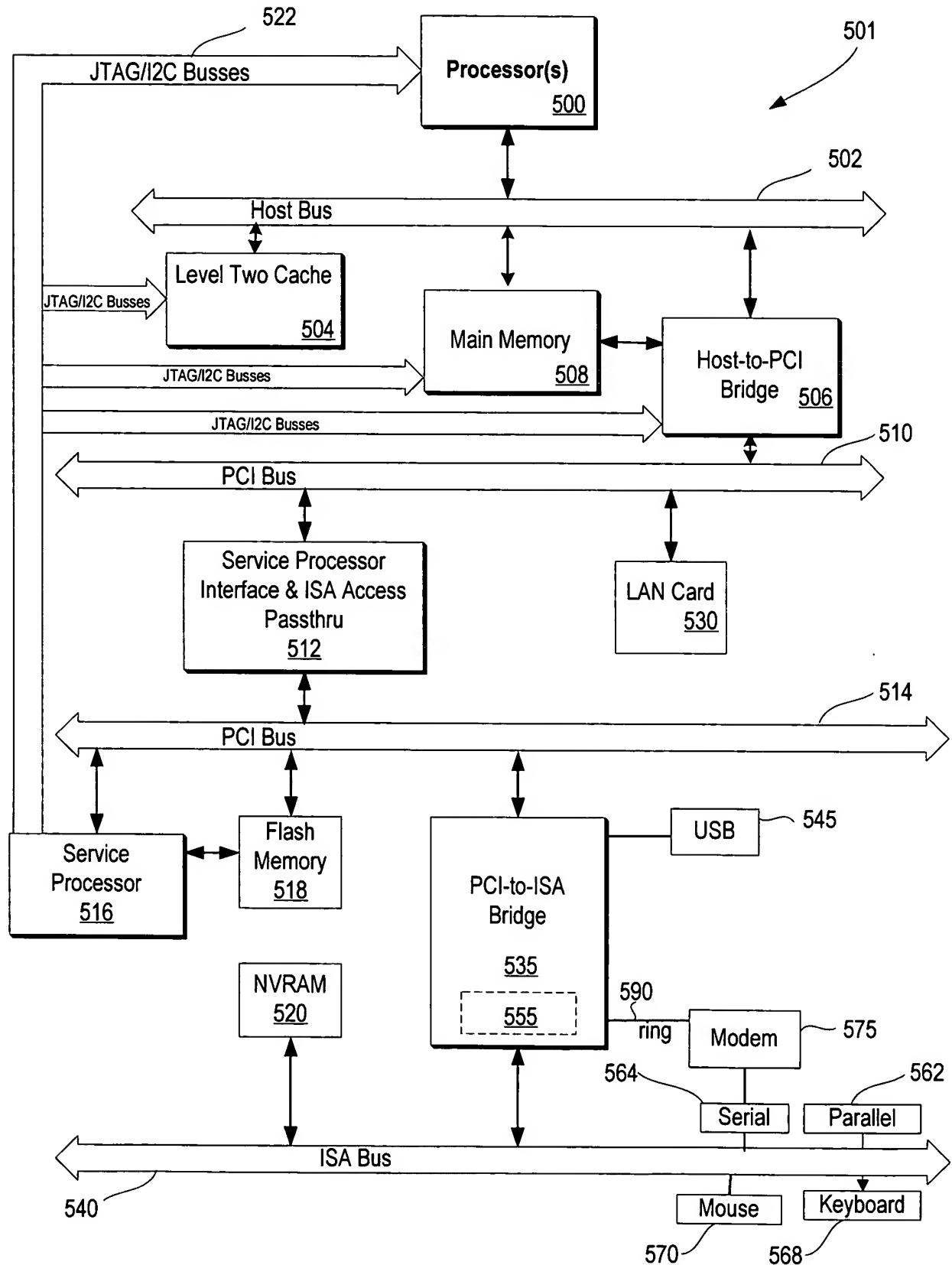
4 / 5

- Assume:**
- MinFreeSpace = 100
 - Threshold = 90
 - MaxPageAhead = 64

400

Figure 4

Free Space	MaxPageAhead	CurPageAhead	ShiftPg	MaxPageAhead (Binary Representation)
> 90	64	64	0	<div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 1 0 0 0 0 0 0</div>
> 80	64	32	1	<div>MaxPageAhead (Binary Representation)</div> <div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 0 1 0 0 0 0 0</div>
> 70	64	16	2	<div>MaxPageAhead (Binary Representation)</div> <div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 0 0 1 0 0 0 0</div>
> 60	64	8	3	<div>MaxPageAhead (Binary Representation)</div> <div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 0 0 0 1 0 0 0</div>
> 50	64	4	4	<div>MaxPageAhead (Binary Representation)</div> <div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 0 0 0 0 1 0 0</div>
> 40	64	2	5	<div>MaxPageAhead (Binary Representation)</div> <div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 0 0 0 0 0 1 0</div>
< 40	64	1 (Off)	6	<div>MaxPageAhead (Binary Representation)</div> <div>0 1 0 0 0 0 0 0</div> <div>CurPage (MaxPage Shifted by ShiftPg)</div> <div>0 0 0 0 0 0 0 1</div>
450				

**Figure 5**